REMARKS

Claims 11 and 12 were rejected under 35 U.S.C. § 112, first paragraph, as lacking support in the specification as originally filed.

Applicants traverse, and respectfully request the Examiner to reconsider for the following reasons.

As for the glass having optical anisotropy (claim 11), the specification describes that "(3) The surface of base particles made of a semiconductor, such as cadmium sulfide (CdS) or the like, or a conductor, such as gold, silver, or the like, is coated with borosilicate glass to forma coating film. This coated powder is consolidated by calcining, whereby a glass having optical anisotropy can be produced." (see page 21, line 3 from the bottom - page 22, line 3 of the present specification).

As for the filter reflecting light having a specific angle (claim 12), the specification describes that "Another technique comprises dispersing silver into an optical glass to bring the silver into a colloidal state and crystallizing the glass using the colloidal silver as nuclei to give a nonlinear optical material." (see page 5, lines 13 to 17).

Referring to the effect of the aforementioned glass, the arrangement of silver particles causes the glass to reflect light having a specific angle. (The glass also has an effect of absorbing light having a specific wavelength (blue).) Although the effect is not specifically described, it is apparent that such effect occurs.

In view of the above-cited passages, it is respectfully submitted that the subject matter of claims 11 and 12 is described in the specification as originally filed, and withdrawal of the foregoing rejection is respectfully requested.

Claims 1, 3, 5, 7, 9 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,453,293 to Beane et al.

Beane et al was cited as teaching a particle including a first material coated with a second material. The plurality of particles may be consolidated to form an article, such that they are said to be three dimensionally arranged the same distance from one another in a given direction (Fig. 11). With respect to claim 9 (magnetic material), the Examiner cites Beane et al as teaching the use of KOVAR as the particle and an oxide as the coating (citing col. 10, lines 59, et seq.). As to claim 10 (capacitor), the Examiner considered that the electrically conductive particles of Beane meet the terms of this claim.

With respect to coating thickness, the Examiner considered that it would have been obvious to vary the coating thickness in order to obtain desired particle properties, in view of the disclosure that the particle properties vary approximately linearly with respect to the ratio of the volume of coating to the volume of particle (citing col. 4, lines 32, et. seq).

Applicants respectfully traverse for the following reasons.

Beane et al (U.S. Patent 5,453,293) - Claims 1, 3, 5 and 7

In order to sufficiently exert the effect of the present invention, the consolidated coated powder is necessarily a continuum having respective multi-layer film-coated particles closely packed three-dimensionally therein (such that there are no voids between each of the particles).

At the same time, the materials which act as nuclei of the particles must be arranged in the same direction as the particles.

The reason thereof is that in the case where film-coated particles are consolidated to form glass, if the particles are not closely fixed to each other, to thereby leave a void between each particle, the interface of the particles or the void present on the interface causes light to be scattered at random, making it impossible for the consolidated coated powder to reflect light or to filter in one direction.

On the other hand, Beane et al. discloses in col. 2, line 7 the possibility of isotropic arrangement of particles depending on the film thickness before consolidation, using a die-press.

However, in Beane et al., there is no definite description that once die-pressed, the particles are completely closely consolidated to each other on their interface and are three-dimensionally arranged. Beane et al. also does not disclose the advantage of three-dimensionally arranging the particles after consolidation.

For the above reasons, it is respectfully submitted that Beane et al. does not teach or suggest the consolidated material of coated powders or process for producing the same as recited in claims 1, 3, 5 and 7.

Claim 9

KOVAR is an alloy mainly composed of iron. An iron alloy can loose its magnetic properties depending on the kind and mixing proportion of metals incorporated therein. (In particular, stainless steel is non-magnetic.) Thus, the occurrence of magnetic properties cannot be judged by the composition of the iron alloy described in Beane et al.

For the above reasons, it is respectfully submitted that Beane et al. does not teach or suggest the magnetic material as claimed in claim 9. Particularly, Applicants dispute that KOVAR is a magnetic material within the scope of claim 9, when coated with an oxide.

Claim 10

The capacitor of claim 10 comprises a base particle having plural coating films thereon, including a dielectric-material layer and a conductor layer. On the other hand, the base particles of Beane et al. are electrically conductive particles which are coated with an insulating material on the surface thereof. This is not a description of a capacitor including a dielectric layer formed between an outer conductor layer and a base particle.

More particularly, even if the metallic tungsten 12 of Beane et al. is coated with the metallic copper 14, aluminum, metallic chromium as pre-coat 68 or metallic cobalt-tungsten, no capacitor effect of storing electricity can be exerted because all these coating materials are electrically conductive materials.

Accordingly, the capacitor as claimed in claim 10 cannot be obtained in view of Beane et al.

For the above reasons, it is respectfully submitted that claims 1, 3, 5, 7, 9 and 10 are patentable over Beane et al., and withdrawal of the foregoing rejection under 35 U.S.C. § 103(a) is respectfully requested.

Claims 1, 3, 6-8 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,716,552 to Paszkiet et al.

Paszkiet was cited as teaching a thick-film conductive paste composed of metal particles coated with a ceramic layer and which may further comprise a second metallic coating. Fig. 4 was cited as showing that the particles are consolidated in a three-dimensional arrangement such that the particles are the same distance from one another in a given direction and are united such that the distance is maintained.

Applicants respectfully traverse for the following reasons.

As required by independent claims 1 and 3, the invention is directed to a consolidated material of coated powders in the form of a molded three-dimensional article.

"MOLD" concerns a device and method for packing a powder into a mold or casting molten glass or metal into a mold to mold the material according to the shape of the mold. Paszkiet et al. does not disclose a molded article.

The particles in Paszkiet et al. are arranged at regular intervals, but the particles are not completely closely consolidated to each other on their interface. This is shown, for example, by Fig. 4 of Paszkiet et al.

As indicated with respect to Beane et al. as above, in order to exert the effect of the present invention, the particles are necessarily closely packed three-dimensionally leaving no gap between each particle and hence are three-dimensionally isotropically arranged. Thus, the structure in Paszkiet et al. is entirely different from that of the present invention.

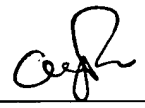
For the above reasons, it is respectfully submitted that claims 1, 3, 6-8 and 10 are patentable over Paszkiet et al., and withdrawal of the foregoing rejection is respectfully requested.

Withdrawal of all rejections and allowance of claims 1, 3 and 5-13 are earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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